

REMARKS

The indicated allowability of claims 10, 11 and 13 is acknowledged with thanks. The features of claim 10 have been incorporated into independent claim 9. Thus, claim 9, and claims 11 and 13 which depend thereon are now allowable.

Claim 10 has been cancelled and claims 11 and 13 have been modified to depend on independent claim 9. Claim 17 has been modified to depend on claim 14.

Claims 2, 3, 12 and 17 have been amended generally as suggested by the Examiner, thus rendering moot the several 112 rejections raised by the Examiner.

Turning to the art rejections, the rejection of claims 9, 12, 14, 15 and 17 under 35 USC §102(b) as being anticipated by Mori (US Patent 5,903,049) as noted supra, claim 9 has been amended to incorporate the limitations of claim 10 which has been indicated to be allowable. Claim 12 has been rewritten, and now requires, in part a second pad directly connected with a third pad. Mori does not teach this. Mori teaches a device that more resembles prior art FIG. 1. Thus, Mori does not anticipate claim 12 or claims 14, 15 and 17 which depend on claim 12.

The rejection of claims 1-8 under 35 USC § 103(a) as being obvious over Takiar et al. (US Patent 5,495,398) in view of Rostoker (US Patent 5,767,570) likewise is improper. As noted in the MPEP 2145 (X)(D)(2), "[i]t is improper to combine references where references teach away from their combination." In this case, Takiar teaches away from Rostoker.

Rostoker teaches a conventional flip chip method of interconnections in the figures cited by the Examiner (FIGS. 1A-1C). However, Takiar teaches away from using a conventional flip chip design. That is to say, Takiar states in the description of the prior art:

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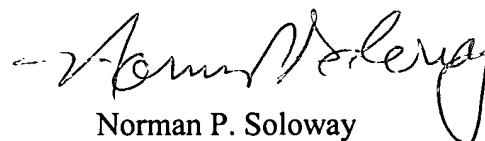
"Controlled Collapse Chip Connection (C4), also known as "flip chip", involves the use of a large number of solder bumps on a die surface which allow it to be bonded face down. Commonly acknowledged disadvantages include requirements for precise alignment, difficulties in cleaning and inspection, uniform solder joint height for all connections to be made and a substrate with low coefficient of thermal expansion for longer thermal cycle life. Furthermore, in order to use C4, all solder bumps and interconnections must be implemented before and during the stacking of the dice; in other words, after the dice are stacked, no additional interconnections can be made...Thus, there is a need for a low cost Multi-Chip Module (MCM) which overcomes the disadvantages of currently available MCMs. (Col. 2 line 58 -- Col. 3, line 4 and Col. 3, lines 15 and 16, U.S. Patent 5,495,398).

Thus, it is improper to combine Takiar and Rostoker and the rejection must be withdrawn.

Having dealt with all the objections raised by the Examiner, the Application is believed to be in order for allowance. Early and favorable action are respectfully requested.

In the event there are any fee deficiencies or additional fees payable, please charge them (or credit any overpayment) to our deposit account number 08-1391.

Respectfully submitted,



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I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: MAIL STOP AMENDMENT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on December 17, 2004 at Tucson, Arizona.

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